

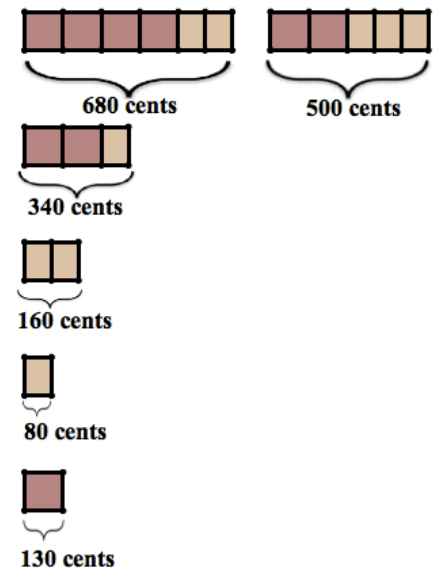
## Idea Wave: Multiple Representations

Add two new observations that you can formulate based on the chart or the different diagrams presented.

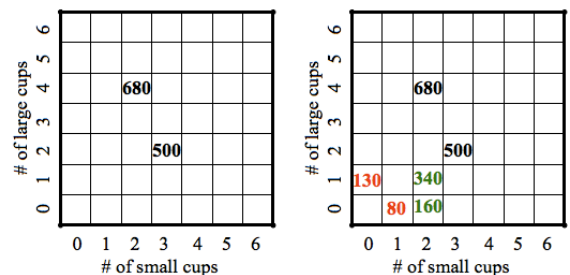
1. The first two rows of the table represent the given information about the cost of coffee.

# of large cups of coffee	# of small cups of coffee	Cost (cents)
4	2	680
2	3	500
2	1	340
0	2	160
0	1	80
1	0	130

2. In the tape diagram, the first combination of number of cups was halved to give us the number of cups of coffee you can get with 340¢. This is represented by line 3 in the table above.



3. In this graphic model, I see the meaning of the 340¢ in this situation.



4. By halving both sides on the first equation, I get the 340.

$$\begin{cases} 2x + 4y = 680 \\ 3x + 2y = 500 \end{cases} \Rightarrow \begin{cases} x + 2y = 340 \\ 3x + 2y = 500 \end{cases} \Rightarrow \begin{cases} x + 2y = 340 \\ 2x = 160 \end{cases} \Rightarrow \begin{cases} y = 130 \\ x = 80 \end{cases}$$

# Idea Wave

Knowing what you do about multiple representations finish the following sentence starters. Be ready to justify your statements.

1. From the ratio table I see that the pattern...
2. The tape diagram helps me see the pattern by ...
3. The graphic explanation helps me see ...
4. Using the system of equations is like the method \_\_\_\_\_ in that ...
5. The advantage of multiple representation for students is ...
6. Multiple representations are valuable for students because...
7. Flexible thinking helps students .....
8. The representation I am most comfortable with is ..... because ...

**Listen carefully as your classmates share their ideas and experiences during the Idea Wave discussion. Jot down two statements that they make and you found particularly interesting Write also the names of the classmates who contributed these ideas.**

	Name	Idea
1.		
2.		